*HEWLETT-PACKARD COMPANY*
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*PATENT APPLICATION*

*ATTORNEY DOCKET NO.* 10011973-1



***IN THE***
***UNITED STATES PATENT AND TRADEMARK OFFICE***

***Inventor(s):*** Selig, et al

***Confirmation No.:*** 5733

***Application No.:*** 09/823,483

***Examiner:*** Nguyen, Kimbinh T

***Filing Date:*** 3/31/01

***Group Art Unit:*** 2671

***Title:*** Fast Clear Technique for Display Regions having Subregions

***Mail Stop Appeal Brief-Patents***
***Commissioner For Patents***
***PO Box 1450***
***Alexandria, VA 22313-1450***

## *TRANSMITTAL OF APPEAL BRIEF*

***Sir:***

Transmitted herewith is the Appeal Brief in this application with respect to the Notice of Appeal filed on *10/13/04*.

The fee for filing this Appeal Brief is (37 CFR 1.17(c)) $ 500.00

***(complete (a) or (b) as applicable)***

The proceedings herein are for a patent application and the provisions of 37 CFR 1.136(a) apply.

( ) (a) Applicant petitions for an extension of time under 37 CFR 1.136 (fees: 37 CFR 1.17(a)-(d) for the total number of months checked below:

| | | |
|---|---|---|
| ( ) | one month | $110.00 |
| ( ) | two months | $430.00 |
| ( ) | three months | $980.00 |
| ( ) | four months | $1530.00 |

( ) The extension fee has already been filled in this application.

( ) (b) Applicant believes that no extension of time is required. However, this conditional petition is being made to provide for the possibility that applicant has inadvertently overlooked the need for a petition and fee for extension of time.

Please charge to Deposit Account ***08-2025*** the sum of $500.00. At any time during the pendency of this application, please charge any fees required or credit any over payment to Deposit Account 08-2025 pursuant to 37 CFR 1.25. Additionally please charge any fees to Deposit Account 08-2025 under 37 CFR 1.16 through 1.21 inclusive, and any other sections in Title 37 of the Code of Federal Regulations that may regulate fees. A duplicate copy of this sheet is enclosed.

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Signature: *Brooke French*

Respectfully submitted,

***Selig, et al***

By *Daniel R. McClure*

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PATENT

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**
**BOARD OF PATENT APPEALS AND INTERFERENCES**

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| In Re Application of: | ) | |
| | ) | |
| Selig et al. | ) | Group Art Unit: 2671 |
| | ) | |
| Serial No.:09/823,483 | ) | Examiner: Nguyen, Kimbinh T. |
| | ) | |
| Filed: March 31, 2001 | ) | Confirmation No.: 5733 |
| | ) | |
| For: Fast Clear Technique for Display Regions Having Subregions | ) | TKHR Docket: 50834-1600 |
| | ) | HP Docket: 10011973-1 |
| | ) | |

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Signature – Brooke French

**APPEAL BRIEF UNDER 37 C.F.R. §1.192**

Mail Stop Appeal Brief - Patents
Commissioner of Patents and Trademarks
P.O. Box 1450
Alexandria, Virginia 22313-1450

Sir:

This is an appeal from the decision of Examiner Kimbinh T. Nguyen, Group Art Unit 2671, mailed May 5, 2004, rejecting all claims 1-29 in the present application and making the rejection FINAL.

## I. REAL PARTY IN INTEREST

The real party in interest of the instant application is Hewlett-Packard Development Company, a Texas Limited Liability Partnership having its principal place of business in Houston, Texas.

## II. RELATED APPEALS AND INTERFERENCES

There are no related appeals or interferences.

## III. STATUS OF THE CLAIMS

The Office Action, however, rejected claims 1-17, 27, and 28 under 35 U.S.C. § 102(b) as allegedly unpatentable over U.S. Patent 5,805,868 to Murphy (hereafter "Murphy"). The Office Action also rejected the remaining claims 18-26 and 19 under 35 U.S.C. § 103(a) as allegedly unpatentable over Murphy.

## IV. STATUS OF AMENDMENTS

No amendments have been made or requested since the mailing of the FINAL Office Action and all amendments submitted prior to the FINAL action have been entered. A copy of the current claims is attached hereto as Exhibit A.

## V. SUMMARY OF CLAIMED SUBJECT MATTER

As embodied in claim 1, a method is provided for performing clear operations in a region having a subregion, comprising, responsive to a clear command, leaving a current clear count for the region unchanged, writing a predetermined value into each of the pixels of the subregion, but not into the pixels

outside the subregion (e.g., p. 15, lines 24-28), and writing the current clear count into clear count storage locations corresponding to each of the pixels of the subregion, but not into clear count storage locations corresponding to the pixels outside the subregion.

As embodied in claim 2, the subregion is a scissor region (e.g., p.11, line 14).

As embodied in claim 3, the subregion is a viewport (e.g., p.11, line 15).

As embodied in claim 4, the predetermined value is a color value (e.g., p. 6, lines 23-26).

As embodied in claim 8, a method is provided for performing clear operations in a region having a subregion (see e.g., FIGs 9A-9D), comprising prior to creation of the subregion, responding to clear commands for the region according to a fast clear technique (e.g., p. 13, lines 20-23), after creation of the subregion and during the life of the subregion, responding to clear commands for the region by leaving a current clear count for the region unchanged, writing a predetermined value into each of the pixels of the subregion, but not into the pixels outside the subregion (e.g., p. 14, lines 5-15), and writing the current clear count into clear count storage locations corresponding to each of the pixels of the subregion, but not into clear count storage locations corresponding to the pixels outside the subregion, and after discontinuance of the subregion, resuming responding to clear commands for the region according to the fast clear technique (e.g., p. 14, lines 25-30).

As embodied in claim 10, the fast clear technique is a striped fast clear technique (e.g., p. 15, lines 19-23).

As embodied in claim 11, the resuming step occurs without changing stripe definitions for the region (e.g., p. 15, lines 19-23).

As embodied in claim 18, a method is provided for performing clear operations in a region having a subregion (e.g., p. 11 line 8 – p. 12, line 2, and FIG. 7). The method determines (ref. numeral 704) the percentage area of the region occupied by the subregion (e.g., p. 11, lines 16-17), and if the percentage area is not higher than a predetermined threshold percentage, respondsto clear commands for the region by: leaving a current clear count for the region unchanged (e.g. p. 4, lines 4-30), writing a predetermined value into each of the pixels of the subregion, but not into the pixels outside the subregion, and writing the current clear count into clear count storage locations corresponding to each of the pixels of the subregion, but not into clear count storage locations corresponding to the pixels outside the subregion (e.g., p. 15, lines 6-13).

As defined in claims 19 and 20, the predetermined threshold percentage is about 75% or about 70%, respectively.

## VI. GROUNDS OF REJECTION TO BE REVIEWED ON APPEAL

Claims 1-17, 27, and 28 stand rejected under 35 U.S.C. § 102(b) as allegedly anticipated by U.S. Patent 5,805,868 to Murphy.

Claims 18-26 and 29 stand rejected under 35 U.S.C. § 103(a) as allegedly obvious in view of Murphy.

## VII. ARGUMENT

**Preliminary Comments**

Before addressing the individual claims, Applicants set forth the following discussion with respect to a fundamental distinction between the claimed embodiments of the present application and the teachings of Murphy. The Office Action appears to make inconsistent application of terms from the Murphy patent. As one example, consider the term "frame count value" used in Murphy. In lines 3-5 of the last paragraph of page 6 of the Office Action, the Office Action equates the "frame count value" of Murphy to the claimed "current clear count for the region" of the present application. However, on page 3 of the Office Action (in connection with the rejections of claims 2-7, the Office Action equates the "frame count value" of Murphy to a "color value" of the present application. Simply stated, the "frame count value," as used in Murphy, must be applied consistently against the claim terms of this application. It cannot be asserted to have one meaning in one instance, and another meaning in another instance. Accordingly, the undersigned respectfully submits that the rejections advanced by the Office Action are inconsistent and should be overturned.

Rather than the further debate semantics over the proper meaning to accord phrases and terms used in Murphy, the undersigned points to a more central feature of the claimed embodiments. Namely, the claimed embodiments are directed to systems and methods that clear a region (or subregion) in response to a single clear command. In contrast, the system disclosed in the Murphy patent amortizes the clearing of a depth buffer and/or a stencil buffer over a number of clear operations issued by an application. (see column 4, lines 25-28). As is specifically taught in Murphy, an area to be cleared (e.g., window or screen) is divided up into n regions, where n is the range of the frame counter. Every time

the application issues a clear command, the reference frame counter is incremented. Therefore, the system of Murphy will require n clear commands to clear an entire area (window or screen).

Indeed, the dilemma encountered in amortizing the clearing function is acknowledged in Murphy by the recognition that there are "three important cases to consider" (col. 4, line 62). Col. 4, line 63 through col., 5 line 7 further detail the three important cases that must be considered by the system of Murphy. In contrast, the fast clear operation performed by the presently claimed invention does not amortize the clear operation in this way (as will be made clear in the discussion below), and this reflects a fundamental distinction between the presently claimed invention and the system disclosed in Murphy.

**Discussion of Rejection of Claims 1, 7, and 27**

The Office Action rejected independent claim 1 under 35 U.S.C. §102(b) as allegedly anticipated by Murphy. Claim 7 depends from claim 1, and claim 27 embodies similar limitations (with respect to the outstanding rejections) as claim 1. Therefore, claim 1 is discussed below as an exemplary claim for discussion.

Independent claim 1 recites:

> 1. A method of performing clear operations in a region having a subregion, comprising:
> ***responsive to a clear command:***
> ***leaving a current clear count for the region unchanged;***
> writing a predetermined value into each of the pixels of the subregion, but not into the pixels outside the subregion; and
> ***writing the current clear count into clear count storage locations corresponding to each of the pixels of the subregion, but not into clear count storage locations corresponding to the pixels outside the subregion.***

*(Emphasis added.)* Applicants respectfully submit that claim 1 patently defines over the

cited art for at least the reason that Murphy fails to disclose the features emphasized above.

As discussed above in the Preliminary Comments, Murphy fails to disclose (and in fact teaches the opposite of) the step of leaving a current clear count for the region unchanged, ***in response to a clear command***.

In applying Murphy to this element, the Office Action states: "leaving a current clear count for the region unchanged (the frame count is found to be the same as the reference frame count..."). In applying Murphy in this way, the Office Action equates the Applicants' claimed "current clear count" with the "frame count" in Murphy. Even assuming, for the sake of argument, that these terms can be so equated, the rejection is misplaced, because Murphy teaches the complete opposite. In this regard, Murphy specifically teaches that "Every time the application issues a clear command the reference frame counter is incremented." If the Examiner believed that the "frame count" in Murphy is something other than the value held by the reference frame counter, then the Examiner should have pointed to the location(s) within Murphy that describe the distinction to be drawn in these terms.

In addition, Murphy fails to teach the "writing of the current clear count into clear count storage locations corresponding to each of the pixels of the subregion." The Office Action alleges that this is taught by the teaching of "clearing at least some other portions of the respective data values; and not clearing the data values of at least some other pixels" of col. 59, lines 15-17. Applicants disagree. First, the cited teaching of Murphy is discussing a FrameCount value, which refers to an 8-bit field shown in FIG. 5B (which is not the same as the clear count of Applicants' claim). For at least these reasons, this application of Murphy against claim 1 is misplaced.

In addition, that teaching of Murphy more completely states:

> ... and for pixels located in the subregion corresponding to the new framecount value, setting the framecount data equal to the new framecount value, and clearing at least some other portions of the respective data values; and not clearing the data values of at least some other pixels.

Thus, Murphy expressly teaches clearing ***some*** portions of the data values and ***not*** clearing the data values of some other pixels. In contrast, claim 1 requires that the writing of the clear count take place into clear count storage locations corresponding to ***each*** of the pixels of the subregion.

Although there are other distinctions between claim 1 and Murphy, the differences noted above clearly define claim 1 over Murphy, and the rejection should be overturned.

Dependent claim 7 depends from claim 1 and patently define over Murphy for at least the same reasons as claim 1.

**Discussion of Rejection of Claim 2, 21**

With regard to claim 2 (and likewise claim 21), claim 2 of the present application defines "the subregion is a scissor region." The Office Action alleges that "Murphy teaches the subregion is a scissor region (col. 9, lines 52-61; col. 44, lines 55-59)." (Office Action p. 3, line 3). Applicants respectfully disagree. This cited portion of Murphy states, in total:

> The Scissor and Stipple Unit. This unit does 4 tests on the fragment (as embodied by the active step message). The screen scissor test takes the coordinates associated with the step message, converts them to be screen relative (if necessary) and compares them against the screen boundaries. The other three tests (user scissor, line stipple and area stipple) are disabled for this example. If the enabled tests pass then the active step is forwarded onto the next unit, otherwise it is changed into a passive step and then forwarded.
>
> ...
>
> Two scissor tests are provided in GLINT, the User Scissor test and the Screen Scissor test. The user scissor checks each fragment against a user supplied scissor region; the screen scissor checks that the fragment lies within the screen.

As can be readily verified from even a cursory reading, this cited portion of Murphy teaches only of the existence of a "scissor and stipple unit," and the operation of the scissor unit to check whether a fragment lies within a region or within the screen. Significantly, this cited portion of Murphy is wholly devoid of any teaching that the subregion (being cleared by a clear command) is a scissor region, as defined by claim 2. Accordingly, the application of this portion of Murphy is misplaced.

**Discussion of Rejection of Claim 3, 22**

With regard to claim 3 (and likewise claim 22), claim 3 defines the subregion as a viewport. The Office Action rejected this claim alleging only that "the screen or window is divided up into n regions where n is the range of the frame counter." Clearly, the mere fact that the teaching of Murphy that the screen is divided up into n regions fails to constitute a proper teaching of the claimed viewport. Accordingly, the undersigned submits that the rejection is misplaced and should be overturned.

**Discussion of Rejection of Claims 4-6 and 23-25**

With regard to claim 4 (and likewise claim 23), claim 4 defines that "the predetermined value is a color value." The Office Action cites col. 58, lines 36-38 of Murphy as allegedly teaching this. In fact, this cited portion of Murphy states only that "a RAMDAC, which provides analog color values in accordance with the color values read out from the VRAM." This, however, is not what the Applicants have claimed in claim 4. Claim 4 specifies that the predetermined value that is written into each of the pixels is a color value. The cited portion of Murphy wholly

fails to provide such a teaching, and Applicants respectfully request that the rejection be overturned. Claims 5 and 6 each depend from claim 4 (and likewise claims 24-25 depend from claim 23) and therefore patently define over Murphy for at least the same reason.

**Discussion of Rejection of Claim 8, 9, 12-17, 28**

The Office Action rejected independent claim 8 under 35 U.S.C. §102(b) as allegedly anticipated by Murphy (USPN 5,805,868). Claims 9 and 12-17 each depend from claim 8, and claim 28 embodies similar limitations (with respect to the outstanding rejections) as claim 8. Therefore, claim 8 is discussed below as an exemplary claim for discussion.

Claim 8 recites:

> 8. A method of performing clear operations in a region having a subregion, comprising:
> ***prior to creation of the subregion***, responding to clear commands for the region according to a fast clear technique;
> ***after creation of the subregion and during the life of the subregion, responding to clear commands for the region by:***
> ***leaving a current clear count for the region unchanged;***
> writing a predetermined value into each of the pixels of the subregion, but not into the pixels outside the subregion; and
> ***writing the current clear count into clear count storage locations corresponding to each of the pixels of the subregion, but not into clear count storage locations corresponding to the pixels outside the subregion***; and
> ***after discontinuance of the subregion***, resuming responding to clear commands for the region according to the fast clear technique.

*(Emphasis added.)* Applicants respectfully submit that claim 8 patently defines over the cited art for at least the reason that Murphy fails to disclose the features emphasized above.

Claim 8 patently defines over Murphy for at least the same reasons that claim 1 defines over Murphy, as claim 8 includes the same defining features of claim 1 (discussed

above).

In addition, and as a separate and independent reason for the patentability of claim 8, the "subregion" of the Applicants' claim is different than the "region" disclosed in Murphy. Murphy discloses subdividing a window into n regions, and only one of the n regions is cleared at a time (with each successive clear command issued by an application, a FrameCount value is increased to cause a next region to be cleared). In the claims of the present application, all pixels in a subregion are cleared in response to a clear command (as opposed to artificially subdividing a region to be cleared, solely to speed the clear process). This is clear from the fact that the clear count for the region of the claims of the present application is unchanged (where Murphy teaches the incrementing of a FrameCount to cover - one by one - all subregions in a region to be clear). Thus, in Murphy, if a window was divided into 16 regions, it would take 16 clear commands to fully clear the window.

Further still, Murphy contemplates only one fast clear technique: one that involves dividing an area (e.g., window or screen) into a plurality of regions, with each individual region being cleared by a clear command (thus, requiring a plurality of clear commands to clear the area). In contrast, claim 8 defines a method that calls for the implementation of a known (e.g., prior art) fast clear technique prior to the creation of a subregion. However, after the creation of a subregion (and throughout the life of the subregion) responding to a clear command by leaving a current clear count for the region unchanged (e.g. NOT incrementing a clear count), ***writing a predetermined valued into each of the pixels of the subregion, but not into the pixels outside the subregion, and writing the current clear count into clear count storage locations corresponding to each of the pixels of the subregion, but not into clear count storage locations corresponding to the pixels outside***

***the subregion.*** Murphy wholly fails to teach these claimed features.

For at least this additional reason, claim 8 defines over the teachings of Murphy, and the rejection should be overturned.

Claims 9 and 12-17 each depend from claim 8 and patently define over Murphy for at least the same reasons as claim 8.

**Discussion of Rejection of Claim 10**

With regard to claim 10, claim 10 recites: "wherein the fast clear technique is a striped fast clear technique." In rejecting this claim, the Office Action states: "fast clear technique is a striped fast clear technique (for local buffer coordinates, col. 26, lines 47-56)." However, this portion of Murphy actually states:

> ...For arbitrary width screens, for instance bitmaps in 'off screen' memory, the next largest width from the table must be chosen. The difference between the table width and the bitmap width will be an unused strip of pixels down the right hand side of the bitmap.
>
> Note that such bitmaps can be copied to the screen only as a series of scanlines rather than as a rectangular block. However, often windowing systems store offscreen bitmaps in rectangular regions which use the same stride as the screen. In this case normal bitblts can be used.

As can be verified from even a cursory review, this cited portion of Murphy wholly fails to teach the claimed use of a striped fast clear technique, as defined by claim 10. For at least this reason, the rejection of claim 10 should be overturned.

**Discussion of Rejection of Claim 11**

With regard to claim 11, claim 11 further defines claim 10 by stating "wherein the resuming step occurs without changing strip definitions for the region." The Office Action cites col. 28, lines 19-31 as allegedly teaching this feature. Applicants respectfully disagree. The cited portion of Murphy is not quoted in this response, but a cursory reading

of that portion of Murphy reveals that it wholly fails to disclose the claimed teaching.

Indeed, it appears that the Office Action has applied certain teachings of Murphy to the present claims based upon certain select word matches. That is, it appears as though certain words from the Applicants' claims may have been electronically searched and portions of Murphy containing a match in these terms (even though the underlying content does not match) were applied as anticipating the claimed invention. For at least this reason, the rejection of claim 11 should be overturned.

**Discussion of Rejection of Claim 18-20, 26, and 29**

The Office Action rejected independent claim 18 under 35 U.S.C. §103(a) as allegedly unpatentable over Murphy. Claims 19-20 and 26 each depend from claim 18, and claim 29 embodies similar limitations (with respect to the outstanding rejections) as claim 18. Therefore, claim 18 is discussed below as an exemplary claim for discussion.

Claims 18 recites:

> 18. A method of performing clear operations in a region having a subregion, comprising:
> ***determining the percentage area of the region occupied by the subregion***; and
> ***if the percentage area is not higher than a predetermined threshold percentage, responding to clear commands for the region by:***
> ***leaving a current clear count for the region unchanged;***
> writing a predetermined value into each of the pixels of the subregion, but not into the pixels outside the subregion; and
> ***writing the current clear count into clear count storage locations corresponding to each of the pixels of the subregion, but not into clear count storage locations corresponding to the pixels outside the subregion.***

*(Emphasis added.)* Applicants respectfully submit that claim 18 patently defines over the cited art for at least the reason that Murphy fails to disclose the features emphasized above.

First, each of these claims patently define over Murphy for at least the same reason

as claim 1, as they include the distinguishing features of claim 1, which were discussed above.

Second, the Examiner has inappropriately substituted his own subjective judgment in rejecting these claims (which is clearly inappropriate). In this regard, the Examiner tacitly admitted that Murphy does not teach the determination of whether a percentage area of a region occupied by a subregion exceeds a predetermined amount (and performing the inventive fast clear only if it does). However, lacking this express teaching, the Examiner merely declared that such would be obvious, and such a rejection is improper.

As a separate and independent basis for the patentability of these claims, Applicants respectfully submit that the rejection is misplaced, as the Office Action failed to site any proper motivation to support the extension of Murphy to the features of these claims. In this regard, the rationale set forth in the Office Action is completely subjective on the part of the Examiner. The Office Action alleged only that the combination would have been obvious "because by dividing the region, this region is much smaller than the full window and hence takes less time to clear..." This rationale is misplaced.

In this regard, the prevailing legal standards have been developed to prevent nebulous and vague subjective rationales (such as the conclusion that quality would be enhanced) from supporting rejections under 35 U.S.C. § 103. It is well-settled law that in order to properly support an obviousness rejection under 35 U.S.C. §103, there must have been some teaching in the prior art to suggest to one skilled in the art that the claimed invention would have been obvious. *W. L. Gore & Associates, Inc. v. Garlock Thomas, Inc.*, 721 F.2d 1540, 1551 (Fed. Cir. 1983). More significantly,

> "The consistent criteria for determination of obviousness is whether the prior art would have suggested to one of ordinary skill in the art that this [invention] should be carried out and would have a reasonable likelihood of success, viewed in light of the prior art. ..." Both the suggestion and the expectation of

> success must be founded in the prior art, not in the applicant's disclosure... In determining whether such a suggestion can fairly be gleaned from the prior art, the full field of the invention must be considered; for the person of ordinary skill in the art is charged with knowledge of the entire body of technological literature, including that which might lead away from the claimed invention."

(*Emphasis added.*) *In re Dow Chemical Company*, 837 F.2d 469, 473 (Fed. Cir. 1988).

In this regard, the Applicants note that there must not only be a suggestion to broaden the functional or operational aspects of the cited reference, but that the Federal Circuit also requires the prior art to suggest the structure resulting from the combination. *Stiftung v. Renishaw PLC*, 945 Fed.2d 1173 (Fed. Cir. 1991). Therefore, in order to sustain an obviousness rejection, the prior art must properly suggest the desirability of providing a fast clear operation, as claimed by the Applicants. "Particular findings must be made as to the reason the skilled artisan, with no knowledge of the claimed invention, would have selected these components for combination in the manner claimed." *In re Kotzab*, 217 F.3d 1365, 1371, 55 USPQ2d 1313, 1317 (Fed. Cir. 2000).

"A showing of a suggestion, teaching, or motivation to combine the prior art references is an essential component of an obviousness holding." *Brown & Williamson Tobacco Corp. v. Philip Morris Inc.*, 229 F.3d 1120, 1124-25, 56 USPQ2d 1456, 1459 (Fed.Cir.2000)) (*quoting C.R. Bard, Inc., v. M3 Systems, Inc.*, 157 F.3d 1340, 1352, 48 USPQ2d 1225, 1232 (Fed.Cir.1998)); The Federal Circuit has made it clear "that the best defense against the subtle but powerful attraction of a hindsight-based obviousness analysis is rigorous application of the requirement for a showing of the teaching or motivation to combine prior art references."); *In re Dembiczak*, 175 F.3d 994, 999, 50 USPQ2d 1614, 1617 (Fed.Cir.1999).

Simply stated, the rejection under 35 U.S.C. § 103 set forth by the Examiner fails to satisfy these fundamental legal requisites, and the rejections under 35 U.S.C. § 103 should be overturned.

**Discussion of Claims 19-20**

Claims 19-20 depend from claim 18 and define over Murphy for at least the same reasons as claim 18. In addition, the undersigned respectfully submits that the Office Action has failed cite proper teachings within Murphy that disclose these claimed features. For example, with regard to claims 19 and 20, these claims define the predetermined threshold percentage to be about 75% and about 70%, respectively. The Office Action alleges that these features are disclosed in Murphy in col. 48, lines 12-13 and col. 47, lines 62-63. In fact, these cited portions of Murphy teach nothing of the sort. In this regard, these portions of Murphy specifically disclose (respectively):

> ...In this way the alpha component of a fragment represents the percentage pixel coverage...

and

> ... In RGBA mode the alpha value is multiplied by the coverage value calculated in the rasterizer (its range is 0% to 100%)....

As is readily verified, there is no teaching of a threshold percentage of 70% or 75% as claimed. For at least this reason, the rejections of claims 19 and 20 are misplaced. In addition, the "alpha" component that Murphy is discussing relates to a transparency value (and not a threshold percentage coverage of a subregion within a region). Accordingly, the application of these portions of Murphy is completely misplaced with respect to the claimed features. Further still, the second cited teaching in Murphy cites a range of 0% to 100%, which is, in effect, no teaching whatsoever, as everything falls within 0% to 100%.

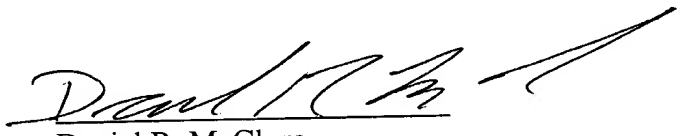
For at least these reasons, the rejections of claims 19 and 20 are misplaced and should be overturned.

## CONCLUSION

Based upon the foregoing discussion, Applicants respectfully requests that the Examiner's final rejection of claims 1-29 be overruled by the Board, and that the application be allowed to issue as a patent with all pending claims.

Please charge Hewlett-Packard Company's deposit account 08-2025 in the amount of $340 for the filing of this Appeal Brief. No additional fees are believed to be due in connection with this Appeal Brief. If, however, any additional fees are deemed to be payable, you are hereby authorized to charge any such fees to deposit account No. 08-2025.

Respectfully submitted,



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## VIII. CLAIMS - APPENDIX

1. A method of performing clear operations in a region having a subregion, comprising:

responsive to a clear command:

leaving a current clear count for the region unchanged;

writing a predetermined value into each of the pixels of the subregion, but not into the pixels outside the subregion; and

writing the current clear count into clear count storage locations corresponding to each of the pixels of the subregion, but not into clear count storage locations corresponding to the pixels outside the subregion.

2. The method of claim 1, wherein the subregion is a scissor region.

3. The method of claim 1, wherein the subregion is a viewport.

4. The method of claim 1, wherein the predetermined value is a color value.

5. The method of claim 4, wherein the color value is the same as a background color outside the subregion.

6. The method of claim 4, wherein the color value is different than a background color outside the subregion.

7. The method of claim 1, wherein the predetermined value is a z value.

8. A method of performing clear operations in a region having a subregion, comprising:

prior to creation of the subregion, responding to clear commands for the region according to a fast clear technique;

after creation of the subregion and during the life of the subregion, responding to

clear commands for the region by:

leaving a current clear count for the region unchanged;

writing a predetermined value into each of the pixels of the subregion, but not into the pixels outside the subregion; and

writing the current clear count into clear count storage locations corresponding to each of the pixels of the subregion, but not into clear count storage locations corresponding to the pixels outside the subregion; and

after discontinuance of the subregion, resuming responding to clear commands for the region according to the fast clear technique.

9. The method of claim 8, wherein the resuming step occurs without changing the current clear count for the region.

10. The method of claim 8, wherein the fast clear technique is a striped fast clear technique.

11. The method of claim 10, wherein the resuming step occurs without changing stripe definitions for the region.

12. The method of claim 8, wherein the subregion is a scissor region.

13. The method of claim 8, wherein the subregion is a viewport.

14. The method of claim 8, wherein the predetermined value is a color value.

15. The method of claim 14, wherein the color value is the same as a background color outside the subregion.

16. The method of claim 14, wherein the color value is different than a

background color outside the subregion.

17. The method of claim 8, wherein the predetermined value is a z value.

18. A method of performing clear operations in a region having a subregion, comprising:
determining the percentage area of the region occupied by the subregion; and
if the percentage area is not higher than a predetermined threshold percentage, responding to clear commands for the region by:
leaving a current clear count for the region unchanged;
writing a predetermined value into each of the pixels of the subregion, but not into the pixels outside the subregion; and
writing the current clear count into clear count storage locations corresponding to each of the pixels of the subregion, but not into clear count storage locations corresponding to the pixels outside the subregion.

19. The method of claim 18, wherein the predetermined threshold percentage is about 75%.

20. The method of claim 18, wherein the predetermined threshold percentage is about 70%.

21. The method of claim 18, wherein the subregion is a scissor region.

22. The method of claim 18, wherein the subregion is a viewport.

23. The method of claim 18, wherein the predetermined value is a color value.

24. The method of claim 23, wherein the color value is the same as a

background color outside the subregion.

25. The method of claim 23, wherein the color value is different than a background color outside the subregion.

26. The method of claim 18, wherein the predetermined value is a z value.

27. Computer program code embodied in a machine-readable storage or transmission medium which, when executed on a computer, causes the computer to perform a method of performing clear operations in a region having a subregion, comprising:

responsive to a clear command:

leaving a current clear count for the region unchanged;

writing a predetermined value into each of the pixels of the subregion, but not into the pixels outside the subregion; and

writing the current clear count into clear count storage locations corresponding to each of the pixels of the subregion, but not into clear count storage locations corresponding to the pixels outside the subregion.

28. Computer program code embodied in a machine-readable storage or transmission medium which, when executed on a computer, causes the computer to perform a method of performing clear operations in a region having a subregion, comprising:

prior to creation of the subregion, responding to clear commands for the region according to a fast clear technique;

after creation of the subregion and during the life of the subregion, responding to clear commands for the region by:

leaving a current clear count for the region unchanged;

writing a predetermined value into each of the pixels of the subregion, but not into the pixels outside the subregion; and

writing the current clear count into clear count storage locations corresponding to each of the pixels of the subregion, but not into clear count storage locations corresponding to the pixels outside the subregion; and

after discontinuance of the subregion, resuming responding to clear commands for the region according to the fast clear technique.

29. Computer program code embodied in a machine-readable storage or transmission medium which, when executed on a computer, causes the computer to perform a method of performing clear operations in a region having a subregion, comprising:

determining the percentage area of the region occupied by the subregion; and

if the percentage area is not higher than a predetermined threshold percentage, responding to clear commands for the region by:

leaving a current clear count for the region unchanged;

writing a predetermined value into each of the pixels of the subregion, but not into the pixels outside the subregion; and

writing the current clear count into clear count storage locations corresponding to each of the pixels of the subregion, but not into clear count storage locations corresponding to the pixels outside the subregion.

## IX. EVIDENCE - APPENDIX

None.

## IX. RELATED PROCEEDINGS- APPENDIX

None.